

### IN THE ABSTRACT

Delete the present abstract and, in its place, insert the following new abstract:

A receiver system contains a group of one-dimensional receivers (501-1 - 501-N) and a multi-dimensional decoder (507 or 1002). In one embodiment, data for a feedback signal ( $a''_k$ ) used by a digital equalizer (1901/1902/1905) in each receiver for generating the current value of that equalizer's equalized signal ( $a'''_k$ ) is supplied from a lookup table as a function of at least one previous symbol ( $\hat{a}_{k-1} - \hat{a}_{k-L}$ ) provided from a symbol selector (1903) for that receiver. In another embodiment, each receiver contains an input section (502-j) and a sequence detector (1001-j, 1100, 1300, 1400-w, or 1600-w). The input section serially filters and digitizes a corresponding receiver input signal (103-j) to generate a corresponding processed signal ( $y_{kj}$ ). The sequence detector performs sequence detection on the processed signal or an intermediate signal generated from the processed signal.

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